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ABSTRACT

The National Job Corps Study is based on a national random sample of all eligible applicants to Job Corps in late 1994 and 1995. The sampled youth were assigned randomly to either a program group whose members could enroll in Job Corps or a control group whose members could enroll in all other programs available to them in their communities. Findings related to delivering services indicated Job Corps centers effectively deliver the planned services called for by the program model and Job Corps provides extensive education, training, and other services. Findings related to making a difference show Job Corps substantially increases the education and training services that youths receive and improves their skills and educational attainment; Job Corps generates employment and earnings gains; employment and earnings gains are found across most groups of students; the residential and nonresidential programs are each effective for the youths they serve; Job Corps significantly reduces involvement with crime; and Job Corps has modest or no impacts on a range of other outcomes. Outcomes regarding whether Job Corps is a good investment whose benefits exceed costs are Job Corps is cost effective despite its high costs; benefits during the study period are modest; benefits should continue; and Job Corps is a good investment. (YLB)

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Does Job Corps Work?

Summary of the National Job Corps Study

June 2001

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Does Job Corps Work?
Summary of the National Job Corps Study

The program's goal is to help youths become more responsible, employable, and productive citizens.

Since its inception in 1964, Job Corps has been a central part of our country's efforts to improve the economic self-sufficiency of disadvantaged youths. Participants are between 16 and 24 years old; most come to the program without a high school diploma. The program's goal is to help youths become more responsible, employable, and productive citizens. It currently serves over 60,000 new participants each year. Job Corps is distinguished from other programs by the intensive education, training, and support services it provides in a residential setting. This feature also makes Job Corps one of the most expensive education and training programs currently available to youths. As such, policymakers require information on its effectiveness. To meet this need, the U.S. Department of Labor sponsored the National Job Corps Study to examine implementation, measure the program's impacts on participants' employment and related outcomes, and assess whether the value of the program's benefits exceeds its costs.

FINDINGS IN BRIEF

- Job Corps centers deliver comprehensive and consistent services.
- Job Corps makes a meaningful difference in participants' educational attainment and earnings.
- The gains from Job Corps are found across most groups of students and types of settings.
- Job Corps is cost-effective: the value of benefits from the program exceed its costs.

The Study at a Glance

To provide the best possible evidence on program effectiveness, the National Job Corps Study is based on a national random sample of all eligible applicants to Job Corps in late 1994 and 1995. The sampled youths were assigned randomly to either a program group or a control group. Program group members could enroll in Job Corps. Control group members could not, but they could enroll in all other programs available to them in their communities. We estimated impacts by comparing the experiences of the program and control groups using data from periodic interviews conducted over a four-year follow-up period. A dollar value was placed on the individual impact estimates in order to calculate total program benefits, which were then compared to program costs in the benefit-cost analysis. The study also included a careful process analysis, which used data from week-long visits at 23 centers and from surveys of outreach and admissions agencies and centers, to document the program model and its implementation.

This report summarizes the findings of the study, which are presented in a series of separate project reports listed at the end of this document. The main findings from the National Job Corps Study are discussed next.

Delivering Services Effectively

Job Corps centers effectively deliver the planned services called for by the program model. Job Corps delivers intensive services to its students, including basic education and vocational training, usually in a residential setting. Individual Job Corps centers — most serving between 200 and 700 students — are at the heart of the operation. Centers provide academic education, vocational training, residential living, and other services, as called for by the program model. Although the quality of implementation varies from center to center, and centers have different "personalities," Job Corps is uniform and well-implemented across centers.

Individual Job Corps centers . . . are at the heart of the operation.

Job Corps provides extensive education, training, and other services. Most applicants in our sample who were screened and found eligible did enroll, with an average participation period of eight months. During this period, students received large amounts of academic classroom instruction and vocational skills training. They also participated extensively in a wide array of activities outside the classroom designed to foster the understanding and interpersonal skills needed to be responsible adults.

Making a Difference

Job Corps substantially increases the education and training services that youths receive. It also improves their skills and educational attainment. Overall, Job Corps increased the education and job training that participants received both inside and outside the program by about 1,000 hours. This is approximately equal to the hours of instruction received in a regular 10-month school year. In addition, most of this increase was in academic classroom instruction and especially vocational skills training. Participation also produced measurable improvements in the literacy and numeracy skills needed to function successfully in daily life. Finally, Job Corps substantially increased the receipt of GED and vocational certificates but had no effect on college attendance.

Job Corps generates employment and earnings gains. Employment and earnings gains were noted by the beginning of the third follow-up year and persisted through the end of the four-year follow-up period. During the last year, the gain in average earnings per participant was about $1,150, or 12 percent.

Employment and earnings gains are found across most groups of students. Impacts were similar for males and females. Earnings gains were found for groups of students at special risk of poor outcomes (such as very young students, females with children, and older students without a high school credential at enrollment) as well as for groups at lower risk (such as older students with a high school credential).

The residential and nonresidential programs are each effective for the youths they serve. Participants in both programs had positive earnings and employment impacts overall, as did nearly all groups defined by gender and the presence of children. For nonresidential females with children, these positive impacts were especially noteworthy — they suggest

that the nonresidential program effectively serves a group that cannot participate in the residential program because of family responsibilities.

Job Corps significantly reduces involvement with crime. The arrest rate was reduced by 16 percent (about 5 percentage points) overall. Arrest rate reductions were largest during the first year after random assignment, when most participants were enrolled in Job Corps. However, Job Corps also led to reductions during the later months of the follow-up period. Participation also reduced convictions, incarcerations resulting from a conviction, and crimes committed against program participants.

Job Corps has modest or no impacts on a range of other outcomes. The program had small beneficial impacts on receipt of public assistance and on self-assessed health status, but no impacts on illegal drug use, fertility, or custodial responsibility. It had small positive impacts on independent living, mobility, and use of child care.

A Good Investment: Benefits Exceed Costs

Job Corps is cost-effective despite its high costs. Job Corps costs society about $14,000 per participant. However, program benefits have a substantially larger dollar value of approximately $31,000 over a youth's lifetime. Society benefits by about $17,000 for each youth it sends to Job Corps.

Benefits during the study period are modest. The main benefits to society observed during the study period include increased output from more productive workers, less use of alternative education and training programs, and lower crime. Together these benefits add up to about $4,000 during the four-year observation period.

But benefits should continue. The greater productivity of participants is very likely to continue beyond the study's four-year follow-up period. The earnings gain observed during the third follow-up year persisted undiminished during the fourth follow-up year. By teaching youths multiple work-related skills and improving their literacy, Job Corps is likely to have long-lasting effects on their productivity. And the earnings gains observed during the last year of the follow-up period are similar to the estimated returns to an additional year of school—returns that persist throughout a worker's lifetime. By extrapolating the earnings gains in the last year of the follow-up period to the rest of a youth's working lifetime, we estimate that Job Corps participants will enjoy earnings gains after the follow-up period of about $27,000 per participant.

Job Corps is a good investment. Although a great deal of uncertainty surrounds the specific amount by which benefits exceed costs at this time, benefits exceed costs under most reasonable scenarios relating to the unknown future earnings gains. And long-term followup of the youths using administrative records to measure earnings may be able to eliminate the uncertainty surrounding the estimate of Job Corps benefits.

What Is Job Corps and How Does it Work?

Job Corps is an intensive and comprehensive program. Our process study revealed a well-developed and well-implemented program model. The program gives about 60,000 disadvantaged youths substantial, meaningful basic education, job training, and residential services each year. Placement help is available to participants for six months after they leave the program, although we found these services were not intensive.

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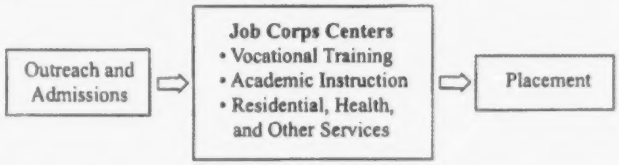
What Services Does Job Corps Provide?

Job Corps services are delivered in three stages (Figure 1): outreach and admissions (OA), center operations, and placement. Center operations, which are the heart of the program, involve academic education, vocational training, residential living, health care, and a wide range of other services, including counseling, social skills training, health education, and recreation.

FIGURE 1

SERVICES PROVIDED BY JOB CORPS

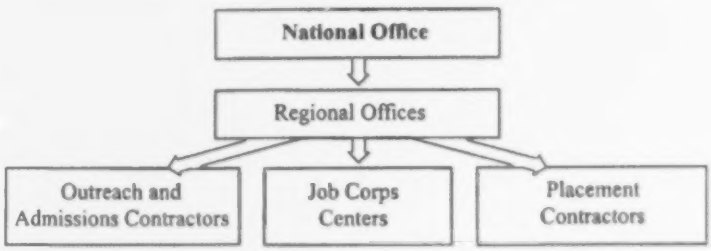


Organization of the Program

At the time of the study, the core services were delivered at 110 Job Corps centers nationwide, through a program structure that united federal agencies, private contractors, private businesses, and eight national unions. Thirty Civilian Conservation Centers (CCCs) were run by federal government entities under interagency agreements with the U.S. Department of Labor; the other 80 contract centers were run by private entities under contract to Job Corps regional offices.

A variety of public and private entities performed outreach and screening for new students and helped them to find jobs or further education after they left the program. Federal staff in the Job Corps National Office provided programmatic and policy guidance; federal staff in nine regional offices contracted for and directly oversaw provision of services (Figure 2).

FIGURE 2
STRUCTURE OF JOB CORPS



What Is Unique About Job Corps?

Job Corps has several distinctive characteristics:

- A large residential component; about 88 percent of the students live at the centers while enrolled.
- Uniformity across the nation in program form and content. Job Corps has a high degree of federal direction, with many regulations and contractual oversight.
- Strong career paths that have helped the program attract and retain a committed staff.
- Continuity; many centers have been run by the same contractor for decades, resulting in a valuable infrastructure of institutional knowledge.
- A performance-driven system; emphasis is placed on a contractor's report card in awarding competitive contracts. The program's performance measurement system has focused managers and staff on achieving specific outcomes.

Bringing Students In: Outreach and Admissions

Applicants must meet several criteria to be eligible for Job Corps.

Job Corps has an extensive national system to generate a steady influx of youths who need and can benefit from the program's intensive services. OA counselors recruit students, ensure they meet eligibility criteria, and let them know what life at the center will be like.

As of July 1996, OA services were provided by about 1,000 counselors from 86 contractors made up of state and local agencies, such as State Employment Security Agencies, and by private organizations, some of which were affiliated with a Job Corps center.

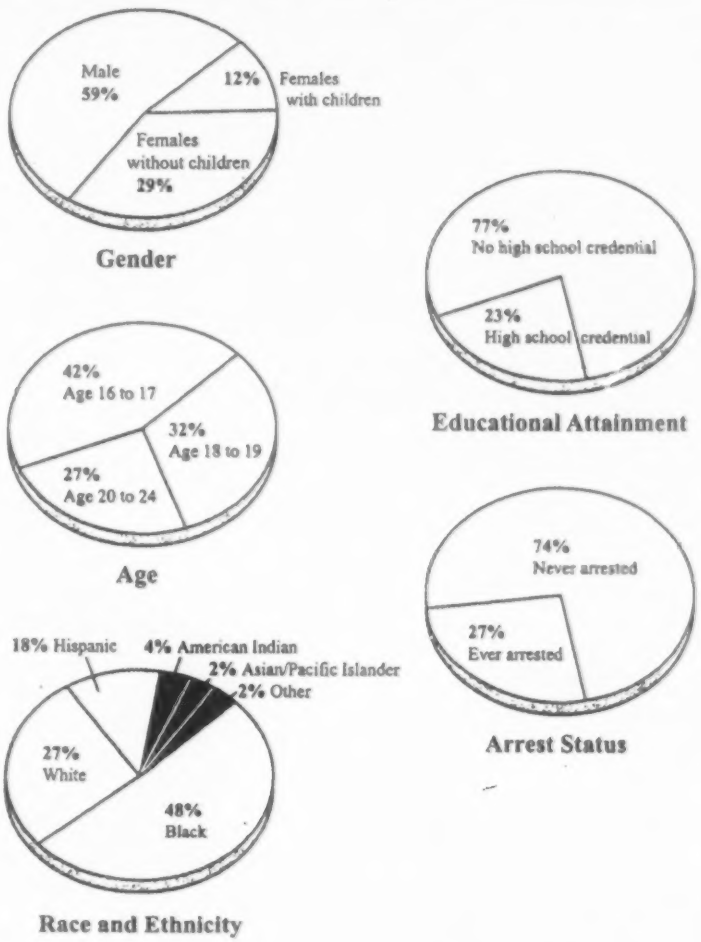
The Population Served

Applicants must meet several criteria to be eligible for Job Corps. The easily documented eligibility criteria are age, U.S. citizenship, family income, selective service registration, and residency. Applicants who are parents must demonstrate that care for the child will be available while they are enrolled. Minors must have parental consent.

In addition, applicants must show that they need and can benefit from additional education and training, come from debilitating environments that impair prospects for successful training in their home community, and have no serious medical or behavioral problems. If the OA counselor uncovers a potentially serious health or behavioral problem, an expert consultant reviews the applicant's history to determine whether admission to Job Corps is appropriate. If the OA counselor questions a youth's aspirations or capacity to benefit from Job Corps, the counselor confers with the youth about these concerns. However, OA counselors reported that applicants who met all other eligibility criteria and persisted in their intention to enroll in Job Corps usually gained admission.

FIGURE 3

CHARACTERISTICS OF ELIGIBLE APPLICANTS



Congress intended for Job Corps to serve disadvantaged youths, and we found that it does. Nearly 80 percent of eligible applicants had dropped out of high school. About 70 percent were members of racial or ethnic minority groups. About one-fourth of applicants (and nearly one-third of male applicants) had been in trouble with the law before applying to Job Corps.

Congress intended for Job Corps to serve disadvantaged youths, and we found that it does.

Job Corps draws eligible applicants disproportionately from certain groups within the broader population of low-income youths. Compared to the nationwide population of economically disadvantaged youths between the ages of 16 and 24, an eligible Job Corps applicant is more likely to be male, African American, 16 or 17 years old, a high school dropout, and from a large urban area. He or she is also more likely to have a lower family income and fewer childre The geographic distribution of Job Corps applicants mirrors the distribution of disadvantaged youths nationwide.

Job Corps in Action: Center Operations

The program's core services are provided through centers, where students spend their time in the program. Core services encompass vocational training, academic instruction, and residential living (including health) services.

Enrollment in Job Corps does not have a fixed duration. The program has a distinctive open-entry, open-exit educational philosophy. Instruction is individualized and self-paced; students arrive with different levels of preparation, progress at their own pace, and leave when they have achieved an appropriate level of mastery. After an orientation period of two to four weeks, participants get an individualized mix of vocational and academic instruction, as well as residential living services.

Vocational training prepares youths for work or advanced training. The Job Corps vocational curricula, which were developed with input from business and labor organizations, emphasize the achievement of specific competencies necessary to work in a trade. Participants also experience workplace learning through Vocational Skills Training (VST) projects and Work Experience Programs (WEPs).

The program has a distinctive open-entry, open-exit educational philosophy.

Students in VST projects use specialized job skills—such as carpentry, masonry, or painting—to improve the facilities of Job Corps centers and other organizations in the community. WEPs place a student in an unpaid position with a local employer for six weeks to gain real work experience.

Job Corps offers training in more than 75 vocational areas. A typical center offers 10 or 11 trades, although the number of trades varies from 5 to 20. Many centers in urban areas contract with local training providers to broaden the range of programs offered.

MAJOR TRADES FOR WHICH TRAINING IS PROVIDED

Clerical	Building and Apartment Maintenance	Welding
Health Related	Food Service	Painting
Carpentry	Auto/Truck Mechanic	Electrician
Masonry		

Academic education aims to alleviate deficits and provide a GED certificate. Participants typically enter Jobs Corps with poor literacy and numeracy skills. Only 40 percent of those entering the program, including high school graduates, read at a level that qualifies them for enrollment in a GED preparation course. The Job Corps academic program is designed to alleviate these deficits.

The program design has many features that seek to make the residential living experience pleasant, productive, and supportive of vocational training and academic education.

Across centers, the Job Corps Computer Managed Instruction (CMI) system delivers uniform curriculum for major academic courses—reading, math, and writing/thinking skills. CMI is integral to instruction and student assessment. While instructors have flexibility in instructional approaches, the Job Corps curriculum and CMI dictate the content. Some centers use supplemental courses or approaches if resources are available and students have the right needs, skills, and requirements.

The residential living and health services component is a distinctive feature of Job Corps. The program design has many features that seek to make the residential living experience pleasant, productive, and supportive of vocational training and academic education. Consequently, residential living encompasses a wide range of program elements, including new student orientation, residential support services, counseling, social skills development, evaluation of student progress, intergroup relations, recreation, student government and leadership, and behavior management. A closely related component is the provision of services to meet participants' health and other basic needs.

Nonresidents can participate in all residential support services except dormitory life. They attend vocational training, academic education classes and social skills training, and are encouraged to participate in other aspects of center life. However, their participation is often limited because of family responsibilities. Special nonresidential counselors help nonresidents resolve child care, transportation, and income support problems, in addition to the full range of issues that counselors address with residents.

Did Participants Get Services?

Eligible applicants received a substantial dose of the program's services. Most eligible applicants (about 73 percent) did enroll in Job Corps. Participants typically enrolled very soon after being found eligible, about six weeks on average. Three-quarters of those who enrolled did so in the first month.

Eligible applicants who chose to enroll were very similar to those who did not. We conducted an exhaustive quantitative analysis of the factors that predict whether an eligible applicant would ever enroll in Job Corps. We found some relationships that might provide lessons for OA counselors, but overall it was difficult to predict who would or would not enroll.

Most participants were in Job Corps for a long time, although the duration of participation varied considerably. Because there is no fixed enrollment period, students can spend varying amounts of time in the program. The average length of stay was about eight months. About 28 percent of all enrollees stayed for less than three months; nearly a quarter were in the program for over a year.

Participants used center activities extensively. Seventy-seven percent received both academic instruction and vocational training. More than 82 percent reported receiving academic instruction, and nearly 89 percent received vocational training. The average participant received 1,140 hours of academic and vocational instruction, equivalent to about one year of high school classroom instruction. Participants also took part in the many socialization activities in Job Corps, such as parenting education, health education, social skills training, and cultural awareness classes.

Completing a GED and completing vocational training are important program milestones, as evidenced by the prominent role of these student outcomes in assessing center performance. It was difficult to predict who would drop out early or who would complete program milestones. We sought to determine whether particular personal characteristics or program characteristics were associated with higher rates of achieving these key milestones. Although we could not accurately predict on the basis of personal and program characteristics who will complete, several associations stood out:

- Younger participants were less likely than older ones to complete a vocation or earn a GED in Job Corps.
- Participants at CCCs were more likely to complete these milestones.
- Participants attending centers that we judged to have exceptionally strong processes for assigning students to a trade and for evaluating student progress were more likely to complete these milestones.
- Participants attending centers with residential facilities that we judged to be exceptionally poor were less likely to complete these milestones (although students at centers with exceptionally good facilities did no better than those with average ones).

After Job Corps: Placement Services Available After Leaving

Placement agencies help former Job Corps students get jobs that will allow them to be self-sufficient or pursue additional training. At the time of the study, they were required to provide placement assistance to all Job Corps participants for six months after they left the program, regardless of how long they had been enrolled. These agencies include Job Corps centers and other public and private organizations. Most hold competitively awarded cost-reimbursement contracts administered by regional offices. Many placement agencies also hold contracts to conduct OA activities.

However, placement services are stretched thin.

However, placement services are stretched thin. We found that placement agency services were limited in scope and substance. Most staff were devoted to locating participants and maintaining a minimal level of contact with them over the six-month placement horizon. Placement staff rarely meet with participants in person, and most contact occurs by telephone, which limits ability to provide comprehensive placement services. Our survey confirmed that relatively few students got help from placement agencies in securing a job or further training. Many managers suggested that they could provide more intensive placement services to program graduates if the requirement to serve all participants — regardless of whether they had had significant exposure to Job Corps — were abolished. After the study, the rules were changed to allow placement staff to focus more on program graduates.

What Are the Impacts on Participants?

How effective is Job Corps at meeting its goals of helping disadvantaged youths become more responsible, employable, and productive citizens? This section presents our findings on the overall impacts of Job Corps on participants' lives. We show that Job Corps does indeed meet its goal. The program has impacts on a wide range of measures of the success of disadvantaged youths, including educational attainment, employment and earnings, receipt of public assistance, and criminal behavior.

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Study Design: How We Measured the Impacts

All youths nationwide who applied for Job Corps between November 17, 1994 and December 16, 1995 and were found eligible by February 1996 were randomly assigned to either a program group or a control group. Program group members were allowed to enroll in Job Corps; control group members were not (although they could enroll in other training or education programs). The outcome measures for the analysis were obtained from interviews conducted at baseline (shortly after random assignment) and at 12, 30, and 48 months after random assignment. The research sample includes 11,313 youths who completed a 48-month interview. About 80 percent of the original sample of both program and control group members responded to the 48-month interview.

Impact estimates are presented per eligible applicant and per participant. The estimates per eligible applicant were obtained by computing differences in outcomes between all program and control group members. These impacts yield estimates of the effect of Job Corps for those offered the opportunity to enroll in the program. They are pure experimental estimates, because random assignment was performed at the point that applicants were determined to be eligible. However, they are combined impact estimates for the 73 percent of program group members who enrolled in Job Corps centers and the 27 percent who did not. Because policymakers are more concerned with the effect of Job Corps on those who enrolled and received services, we estimated the impact per participant by dividing the impact per eligible applicant by the proportion of program group members who enrolled (73 percent). These estimates assume that Job Corps had no impacts on eligible youths who did not enroll.

Education and Training: Learning to Earn

To build for the future, Job Corps provides intensive academic classroom instruction and vocational skills training in order to increase participants' productivity and future earnings. But did Job Corps make a difference in the amount of education and training received by participants? Did it improve their educational levels relative to what they would have been without the program? The answer to these questions depends critically on what education and training the control group received and what education and training the program group received from other sources, as well as from Job Corps. Our main findings are:

Many control group members received substantial amounts of education and training. Seventy-two percent participated in an education or training program during the 48 months after random assignment (Table 1). On average, they received about 850 hours of education and training, roughly equivalent to three-quarters of a year of high school.

Job Corps participants spent ... about 1,000 hours more ... in education and training than they would have if they had not enrolled.

Participation rates were highest in programs that provide some of the same types of education and training as Job Corps: GED programs (37 percent); high school (32 percent); and vocational, technical, or trade schools (29 percent). Because control group members demonstrated motivation to go to Job Corps, it is not surprising many also had motivation to find other programs. High school participation rates were high (32 percent), yet those who returned to high school persisted for an average of only about nine months. Very few control group members, who on average had only completed tenth grade when applying for Job Corps, graduated from high school.

Job Corps substantially increased the education and training that program participants received, despite the activity of the control group. Ninety-three percent of the program group engaged in some education or training, compared to 72 percent of the control group (Table 1). Job Corps participants spent 5 hours per week — about 1,000 hours in total — more in education or training than they would have if they had not enrolled. This impact per participant corresponds to roughly one high school year. The impact per participant on time spent in vocational training was considerably larger than the impact on time spent in academic classes (about three hours per week, compared to one hour per week).

TABLE 1

IMPACTS ON PARTICIPATION AND TIME SPENT IN EDUCATION AND TRAINING PROGRAMS

	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Estimated Impact per Participant[b]
Percentage Ever Enrolled in an Education or Training Program During the 48 Months After Random Assignment	93	72	21*	29*
Average Percentage of Weeks Ever in Education or Training	24	18	6*	9*
Average Hours per Week Ever in Education or Training	8	4	4*	5*
Sample Size	**6,828**	**4,485**	**11,313**	

[a]Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b]Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the difference between the proportion of program group members who enrolled in Job Corps and the proportion of control group members who enrolled in Job Corps during their three-year restriction period.

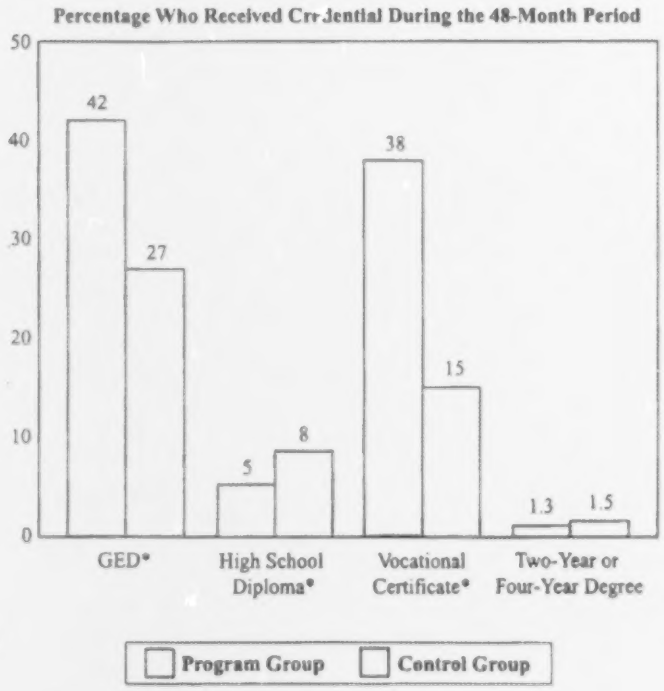
* Significantly different from zero at the .05 level, two-tailed test.

Job Corps had large effects on the receipt of credentials that it emphasizes most: GED and vocational certificates. Among those without a high school credential at random assignment, about 42 percent of program group members obtained a GED during the 48-month period, compared to only 27 percent of control group members (Figure 4). However, slightly more of the control group earned a high school diploma. About 38 percent of program group members reported receiving a vocational certificate, compared to about 15 percent of the control group.

Job Corps had no effect on college attendance and completion. About 12 percent of both the program and control group attended a two-year college, and about 3 percent attended a four-year college. Less than two percent obtained a two- or four-year college degree (Figure 4).

FIGURE 4

DEGREES, DIPLOMAS, AND CERTIFICATES RECEIVED



*Difference is statistically significant.

Job Corps improved participants' functional literacy. In conjunction with the 30-month follow-up interviews, we conducted literacy tests on over 2,000 sample members. The literacy assessment measured the ability to perform a wide variety of information processing tasks that adults encounter in everyday life. Three dimensions of literacy were assessed: (1) prose literacy (the knowledge and skills necessary to understand and use information

from text); (2) document literacy (the knowledge and skills necessary to locate and use information in tables, charts, graphs, and maps); and (3) quantitative literacy (the knowledge and skills necessary to perform different arithmetic operations using information embedded in prose and document materials).

Job Corps participants had higher average scores on these measures than the control group did, especially on the prose and quantitative dimensions. Job Corps raised participants' average test scores by about four points on the prose scale, two points on the document scale, and five points on the quantitative scale. The impacts on the prose and quantitative scale are statistically significant at the 10 percent level. These gains were modest but sufficient to move two to four percent of participants from the lowest level of proficiency to the second lowest level.

Employment and Earnings: Bridge to the Future

Preparation for labor market success is a large part of Job Corps. Job Corps participation increases the time spent in academic classes and vocational training. We would expect that this increased education and training would increase participants' skill levels and their labor market productivity. This increased productivity may in turn enhance earnings, time spent employed, wage rates, and fringe benefits for participants after they leave the program. A summary of our findings in these areas follows.

Job Corps generated positive earnings impacts . . .

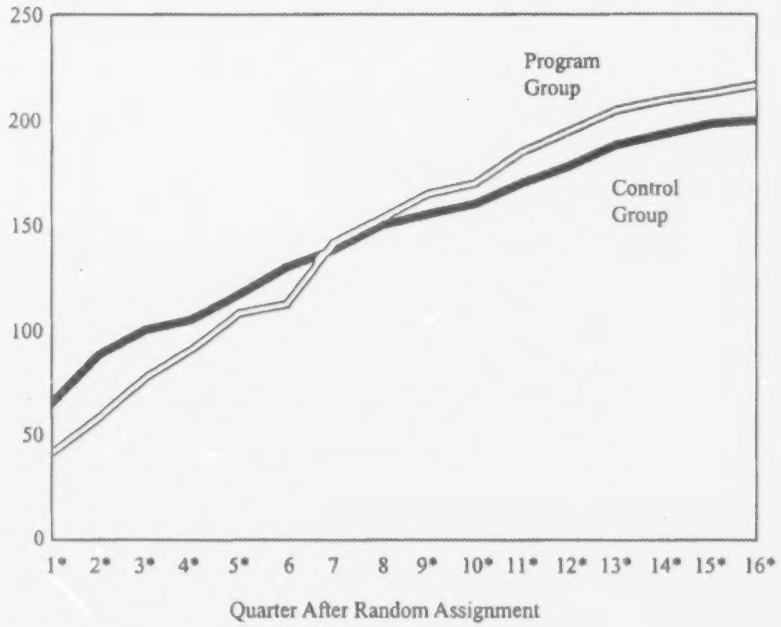
Job Corps generated positive earnings impacts beginning in the third follow-up year, and the impacts persisted through the end of the four-year follow-up period (Figure 5). The control group's earnings were larger than those of the program group early in the follow-up period, because many program group members were enrolled in Job Corps then. It took about two years after random assignment for the program group's earnings to overtake the control group's. The impacts grew in the third year of the follow-up period and persisted in the fourth year. In the fourth year, average weekly earnings for program group members were $211, compared to $195 for control group members. The estimated impact per Job Corps participant was $22 per week (or $1,150 in total) in the fourth follow-up year, which translates into a 12 percent earnings gain. Impacts on employment rates and hours of work followed similar patterns. These impacts are statistically significant at the one percent significance level.

The earnings gains were due to a combination of greater hours of work and higher earnings per hour. The program-control group difference in earnings in the fourth year was $16 per week. About $11 of this impact was due to the program group working more hours, and about $5 of it was a result of the program group earning more per hour.

Program group members found higher-paying jobs with slightly more benefits. Employed program group members earned more per hour than employed control group members during the postprogram period. Employed program group members earned an average of $0.22 more per hour in their most recent job in the fourth follow-up year ($7.55, compared to $7.33). The percentages of program and control group members who worked in each of several broad occupational areas were similar. Furthermore, the hourly wage differences between the program and control groups were similar across the

FIGURE 5

AVERAGE EARNINGS PER WEEK BY QUARTER (1995 DOLLARS)



*Difference is statistically significant.

occupational categories. Employed program group members were slightly more likely than employed control group members to hold jobs that offered fringe benefits.

Other Outcomes: Becoming More Responsible Citizens

The goal of Job Corps is not only to help youths become more productive, but also more responsible. The study examined the impacts of Job Corps on additional outcomes to help assess the success of the program in achieving this goal. Our main results follow.

Job Corps reduced the receipt of public assistance. Job Corps reduced the receipt of cash welfare plus food stamps by about $640 per participant—a statistically significant impact at the one percent level (Table 2). The estimated program impacts on the receipt of individual types of assistance were small and in many cases not statistically significant. Impacts on welfare receipt were larger during the early part of the follow-up period but persisted through the end of the follow-up period.

Job Corps significantly reduced arrest and conviction rates, as well as time spent incarcerated. About 33 percent of control group members were arrested during the 48-month follow-up period, compared to 29 percent of program group members (a statistically significant reduction) (Table 2). Arrest rate reductions were largest during the first year

TABLE 2

IMPACTS ON KEY PUBLIC ASSISTANCE AND CRIME OUTCOMES DURING THE 48 MONTHS AFTER RANDOM ASSIGNMENT

	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Estimated Impact per Participant[b]
Average Amount of Benefits Received (in Dollars)[c]	3,696	4,156	-460*	-639*
Percentage Arrested or Charged with a Delinquency or Criminal Complaint	29	33	-4*	-5*
Percentage Convicted, Pled Guilty, or Adjudged Delinquent	22	25	-3*	-4*
Percentage Served Time in Jail for Convictions	16	18	-2*	-3*
Average Weeks in Jail for Convictions	6	7	-1	-1
Sample Size	**6,828**	**4,485**	**11,313**	

[a]Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b]Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the difference between the proportion of program group members who enrolled in Job Corps and the proportion of control group members who enrolled in Job Corps during their three-year restriction period.

[c]Benefits include AFDC/TANF, food stamps, SSI/SSA, and General Assistance.

* Significantly different from zero at the .05 level, two-tailed test.

after random assignment (when most program enrollees were in Job Corps). Interestingly, however, Job Corps also led to small arrest reductions during the later months of the follow-up period, after most youths had left the program.

Although program group members were less likely to be arrested for nearly all types of crimes, Job Corps had a larger impact on reducing arrests for less serious crimes (such as disorderly conduct and trespassing) than more serious ones (such as murder and aggravated assault).

Job Corps participation also reduced convictions and time spent incarcerated when convicted. More than 25 percent of control group members were convicted during the follow-up period, compared to 22 percent of program group members. Similarly, Job Corps reduced the percentage incarcerated by two percentage points and the average time spent incarcerated by about six days.

Job Corps reduced crimes committed against program participants. Job Corps students were safer at the centers than they would have been in their home communities. On average, Job Corps reduced the number of times youths were victims by about 20 percent. The largest reduction in crimes committed against participants occurred while they were in Job Corps, but the reductions persisted somewhat afterwards. Reductions were found for almost every type of crime.

Job Corps participation produced modest or no impacts on a variety of other outcomes. Job Corps had modest impacts on:

- *Perceived health status.* A higher percentage of the control than the program group said their health was "poor" or "fair" (18 percent versus 16 percent).
- *Independent living.* Job Corps participants were slightly more likely to be living independently at the 48-month interview point.
- *The use of child care.* Job Corps participants used an average of about 150 more hours of child care while they were at work or in education or training than they would have if they had not enrolled.

. . . beneficial impacts described earlier are found broadly for most subgroups defined by youth and center characteristics . . .

Job Corps had no impact on self-reported use of tobacco, alcohol, and illegal drugs. It also had no impact on bearing children or taking custodial responsibility for them. After 48 months, program group members typically lived farther away than control group members from their home address at application, but there were no differences in the characteristics of their neighborhoods.

What Groups Did Job Corps Affect?

It is clear that Job Corps produces beneficial impacts overall for the full population of participants. Nonetheless, it is important to examine whether these impacts are concentrated in certain groups of participants or centers, or in participants with certain kinds of experiences in the program. This information can be used by policymakers to improve program services and to target them appropriately.

The findings presented here are from a series of analyses designed to improve our understanding of how Job Corps works and for whom. Can we identify certain groups, defined either by youth characteristics, center characteristics, or program completion status, for whom the program is more or less effective?

Our main finding is that the beneficial impacts described earlier are found broadly for most subgroups defined by youth and center characteristics, although a few important exceptions to this generalization exist.

HOW WE ESTIMATED IMPACTS FOR GROUPS

Impacts for groups defined by youth and center characteristics and for residents and nonresidents were estimated by comparing the average outcomes of program and control group members in the group of interest. Impacts for females, for example, were computed by comparing the outcomes of females in the program and control groups. For the groups defined by residential status and center characteristics, our analysis used predictions about each youth's likely residential status, and the center he or she was likely to attend if accepted, that an OA counselor provided at the time of program application. These predictions, which were very accurate, are available for *both* program group and control group members because they were made prior to random assignment. Thus, for example, our analysis of impacts for residents compares the average outcomes of program group and control group members who were predicted to be residential students.

Nonexperimental methods were used to estimate impacts for participants who did or did not achieve key program goals (such as completing vocational training or a GED). It was not possible for OA counselors to accurately predict at the point of application who would complete vocational training and who would not. Instead, statistical models were used to identify individuals in the control group with characteristics similar to those in the program group who completed vocational training. The models also identified individuals similar to those who did not complete. These statistically matched comparison groups were used to assess impacts for vocational completers and noncompleters, as well as GED completers and noncompleters.

Youth Characteristics

Impact estimates were obtained for key groups defined by youth characteristics at the time of random assignment. We estimated impacts for groups defined by gender, age at application to Job Corps, educational attainment, presence of children for females, arrest experience, and race and ethnicity. Our main findings are as follows.

Many groups had different experiences in Job Corps, but the differences were small. The mix of academic and vocational training a participant received depended on whether he or she already had a high school credential (GED or diploma) before program entry. Those with no credential generally took both academic instruction and vocational training. High school graduates focused more on a vocation although they took some academic courses as well. The many other differences across groups were small. Overall, each group's experience was consistent with the conclusions drawn earlier for the program group as a whole.

Impacts on education and training were large across all groups defined by youth characteristics. Impacts on total time spent in programs and on the attainment of a GED (among those without a high school credential at baseline) or vocational certificate were very large and statistically significant for all key groups. However, the pattern of impacts across groups defined by age at application to Job Corps showed some differences. There

The beneficial program impacts for 16- and 17-year-old youths are especially notable because program staff often find this group difficult to deal with . . .

were no impacts on hours in academic classes for those 16 and 17, because nearly half of all control group members in this age group attended academic classes in high school. However, large impacts were found on hours spent in academic classes for older youths. Job Corps increased the hours spent in vocational training for all age groups.

Earnings gains were found broadly across most key groups defined by youth characteristics. Earnings gains during the third and fourth follow-up year were very similar for males and females. Positive impacts were found for groups at special risk of poor outcomes (such as very young students, females with children, youths who had been arrested for nonserious offenses, and older youths who did not possess a high school credential at baseline). They were also found for groups at lower risk, such as older participants with a high school credential at baseline. Earnings gains were found for whites and African Americans.

The beneficial program impacts for 16- and 17-year-old youths are especially notable because program staff often find this group difficult to deal with, and they are more likely to leave Job Corps before completing their education and training than older participants. However, they do appear to benefit from their program experiences.

The earnings gains of females with children at the time of enrollment are also notable, because this group is highly dependent on public assistance. More than one-half of these young mothers enrolled in Job Corps as nonresidents, because child-rearing responsibilities required that they live at home. However, they received amounts of academic classroom instruction and vocational training similar to those of other participants. Furthermore, in the fourth follow-up year, they enjoyed increases of more than 20 percent in their earnings.

Job Corps did not increase the employment and earnings of Hispanic youths and 18- and 19-year-olds. We are not able to provide a satisfactory explanation for these findings, although we have been able to rule out several possibilities. In particular, the lack of an impact is not due to differences in Job Corps enrollment rates or length of time in the program. Hispanics had similar enrollment rates as non-Hispanics, and Hispanic students participated for nearly a month *longer*, on average. Job Corps participation measures did not differ by age.

The lack of impacts also does not appear to be related to other personal or family characteristics associated with low impacts. Overall, the characteristics of Hispanic students and African American participants are very similar (apart from primary language and region of residence), and the characteristics of those 18 and 19 are not unusual. We also found smaller impacts for Hispanic than non-Hispanic participants, and for those 18 and 19 compared with those in other age groups, across nearly all groups defined by other key youth characteristics.

Language barriers do not explain these findings either, since we found similar impacts for Hispanic participants whose primary language was English and for those whose primary language was Spanish. Finally, the findings are not due to characteristics of centers or regions in which Hispanic or 18- and 19-year-old participants are concentrated. The patterns of impacts by race and ethnicity were similar for sample members designated for centers

with a high concentration of Hispanic students and for those designated for centers with a lower concentration. Similarly, impacts were smaller for Hispanic than non-Hispanic participants both in regions with a high concentration of Hispanics and in other regions. Centers attended by those 18 and 19 were similar to centers attended by older participants.

Job Corps reduced criminal activity across most groups. The level of criminal activity differed substantially across groups. However, Job Corps reduced arrests, convictions, and incarcerations for convictions across most groups (and in particular, across gender and age groups).

Residents and Nonresidents

Both residents and nonresidents received substantial Job Corps services. Our survey data indicate that nonresidential students (especially females with children) had somewhat lower enrollment rates than residential ones. Once in Job Corps, however, the residents and nonresidents got similar amounts, types, and intensity of education and training. This is consistent with the process analysis, which found that nonresidential participants are fully integrated into the academic and vocational components of Job Corps, although they are less likely to participate in other center activities.

Impacts on education and training were similar for those assigned to the residential and nonresidential components. Impacts on hours spent in education and training and on the receipt of a GED or vocational certificate were large for both residents and nonresidents.

The residential program was effective for broad groups. Earnings and employment impacts in the third and fourth follow-up years for those assigned to this program were positive overall, and similar for residential males, females with children, and females without children.

The nonresidential program was also effective for students it served. Participation in the nonresidential component improved postprogram earnings overall. In the fourth year, average earnings per week increased by more than $35 for females with children (an increase of 24 percent), and by more than $55 for males (an increase of 26 percent). The nonresidential program had no effect, however, for nonresidential females without children.

The estimates should not be used to assess how a youth who was a residential student would have fared if he or she were a nonresidential student.

Impacts on crime differed by residential status. Job Corps reduced arrest rates for male residents, female residents, and female nonresidents. However, the program had no effect on the arrest rates of male nonresidential students.

Our estimates provide information about the effectiveness of each component for the students it serves, and should be interpreted cautiously. The estimates should not be used to assess how a youth who was a residential student would have fared if he or she were a nonresidential student. This is because residential and nonresidential participants differed in important ways. Compared to residents, both male and female nonresidents were older, more likely to have a child, more likely to have a high school credential, and less likely to have been arrested. Thus, many who participated in the nonresidential program were not able to live away from home because of child-rearing responsibilities and were more mature than the average resident. The nonresidential program that helps this group may not necessarily help the average, less mature Job Corps participant.

Center Characteristics

We found positive impacts broadly across most outcomes and most groups defined by center characteristics. Thus, positive impacts are not concentrated in a few centers or particular types of centers.

Impacts were similar for CCCs and contract centers.

Impacts were similar for CCCs and contract centers. Most Job Corps centers are operated by private organizations under competitively awarded contracts with DOL. However, about thirty CCCs serving 15 percent of participants are operated by agencies of the U.S. Departments of the Agriculture and Interior. The two types of centers differ in several important ways in terms of their size, location, and trades offered (see box).

CHARACTERISTICS OF CCCs AND CONTRACT CENTERS

	CCCs	Contract Centers
Operator	U.S. government agencies	Private for-profit or nonprofit organizations
Type of Contract	Interagency agreements	Competitively awarded
Capacity	Mostly less than 225 participants	200 to 2,000
Location	Mostly rural	Urban, suburban, and rural
Trades	Mostly construction	Diverse offerings

Participants at CCCs and contract centers also differ in several notable ways. At CCCs, a higher proportion are male, white, and at enrollment, under age 18, without a high school credential, and likely to have been arrested.

Despite the many differences between CCCs and contract centers and their students, participants at a typical CCC and contract center had similar gains in attainment of the GED and a vocational certificate, similar gains in earnings during the third and fourth years of the follow-up period, and similar reductions in arrests.

Impacts were similar in large, medium, and small centers. Center capacity may affect students' experiences and impacts in several ways. Large centers may offer more diverse recreational and vocational training opportunities. Yet they may also have more difficulty creating the connections among staff and students that foster successful learning.

DEFINITION OF CENTER SIZE

	Slots	Number of Centers	Percentage of Students
Small Center	225 or less	38	20
Medium Center	226 to 495	49	45
Large Center	496 or more	16	35

Impacts for key education and earnings outcomes were positive for centers of all three sizes.

The characteristics of participants are similar at medium and large centers, but at small centers, more are under 18 years old, high school dropouts, white, and from a small town.

Impacts for key education and earnings outcomes were positive for centers of all three sizes. The estimated earnings gains in the fourth year were statistically significant at medium and larger centers, but not at the small centers, although the difference in impacts across the three size groups is not statistically significant. Reductions in arrests were larger at small and medium centers than at large ones.

Impacts were similar for centers rated as high-, medium-, and low-performing based on the Job Corps performance measurement system. The performance measurement system is intended to focus center staff on helping participants achieve important milestones in Job Corps and positive outcomes after leaving the program. Our process study concluded that center staff, and especially managers, are aware of performance standards and care about their center's ranking. Managers use the system for day-to-day management; many receive financial incentives linked to their center's performance.

The system incorporates a series of measures to gauge each student's success in achieving both program milestones (for example, earning a GED and completing vocational training) and positive outcomes after the program (for example, securing a job or further training and a good wage). A complex formula assesses how well each center attains these outcomes for its students. Our analysis identified high-performing centers as ones ranked in the top third in each of three years, medium-performing centers as ones not ranked consistently in the top or bottom third, and low-performing centers as ones ranked in the bottom third in each year.

Impacts were similar across the three performance groups.

Impacts were similar across the three performance groups. Low-performing centers had essentially the *same* impacts as high- and medium-performing ones. Participants in higher-performing centers had better outcomes. However, the same pattern holds for the control group; control group members designated for higher-performing centers had better average outcomes than those designated for lower-performing centers. Thus, the performance measurement system does not seem to be achieving the goal of distinguishing between more and less effective centers.

Achieving Key Program Goals

For many years, completing an appropriate level of vocational training and, for participants who do not possess a high school credential at enrollment, earning a GED, have been two of the most important objectives set for Job Corps. The Workforce Investment Act of 1998 (WIA) has reinforced the importance of these goals.

In this section, we examine the extent to which Job Corps improved the earnings of participants who (1) completed vocational training, (2) earned a GED, and (3) did not achieve these program goals. While it might seem obvious that the impacts for completers were larger than impacts for noncompleters, this may not be the case.

Nearly all of the positive earnings impacts that we observe for all participants accrue to those who completed a vocational program or received a GED.

Nearly all of the positive earnings impacts that we observe for all participants accrue to those who completed a vocational program or received a GED. In the last quarter of the four-year follow-up period, the estimated impact for vocational completers was about $50 per week, and the estimated impact for GED completers was about $60 per week. In contrast, those who participated but failed to complete a vocational program or earn a GED derived no benefit from Job Corps. These same conclusions hold for groups defined by age (16 and 17, 18 and 19, 20 to 24). The consistency of the estimated earnings impacts across age groups provides additional evidence that program completion matters. This finding lends support to the recent emphasis the program has placed on ensuring that participants graduate, in response to WIA.

It is important to acknowledge several limitations of the estimates for completers and noncompleters. First, although we matched on a large number of baseline variables, and our models have some predictive power in distinguishing completers from noncompleters, there are likely to be unobservable differences between the comparison groups and the program groups of interest. If this is the case, the results may be unreliable. Second, participants who complete their vocational programs and/or attain a GED typically remain in the program for a long time and receive extensive residential services, so the impacts for completers may also reflect more time in the program and greater exposure to the other experiences that Job Corps offers. In addition, by estimating impacts separately for vocational completion and GED attainment, we have not examined the effects of achieving one milestone but not the other, or of achieving neither.

We believe, however, that the strong and consistent patterns over time and across age groups indicate the program's positive impacts are very likely due to the impacts realized for vocational completers and participants who earned a GED in Job Corps. Furthermore, little or none of the impact is for noncompleters. Program practices that promote retention and facilitate completion of vocational training or a GED are likely to be beneficial.

What Are The Benefits and Costs of Job Corps?

Job Corps has impacts on many aspects of participants' lives. But it is also an expensive program, costing the government about $16,500 per participant. This section addresses whether the impacts discussed earlier are large enough to justify this large outlay.

Our findings suggest that Job Corps is a good investment: the benefits to society exceed the costs of the program by nearly $17,000 per participant (Table 3). The finding that benefits exceed costs holds for a wide range of plausible assumptions. The finding does, however, depend critically on the assumption that the impacts on earnings observed during the study do not decline rapidly as participants get older. Observations during the study and evidence from other studies suggest that these impacts will persist without rapid decay.

Benefit-Cost Methodology

. . . the benefits to society exceed the costs of the program . . .

In a benefit-cost analysis, a dollar value is placed on each impact of a program. By measuring impacts in dollars, a benefit-cost analysis enables policymakers to compare the diverse benefits of Job Corps with its costs. It also provides a way of assessing the relative size of each impact and the cost-effectiveness of the program as a whole.

The analysis included a diverse set of benefits and costs that fall into four categories:

1. The benefits of increased output resulting from the additional productivity of participants

2. The benefits from the reduced use of other programs and services, including other education and training, public assistance, and substance abuse treatment programs

3. The benefits from reduced crime committed by participants as well as the benefits from reduced crime committed against participants

4. Program costs, including reported program costs, costs not reported on Job Corps budgets, and the economic costs of the land, buildings, and other capital used by Job Corps

Benefits and costs were measured from three different perspectives: (1) everyone in society, (2) participants, and (3) the rest of society. Society's perspective is the most relevant for policymakers because it indicates whether the aggregate benefits from the program are greater than the resources used, abstracting from who enjoys the benefits and who bears the costs. The participants' perspective indicates whether participating in Job Corps is a good investment for the youths themselves. The rest of society includes taxpayers who bear most of the program cost. This perspective lets us estimate the magnitude of the investment in Job Corps made by taxpayers and other citizens.

We observed youths for about three years after they left Job Corps. However, Job Corps aims to make long-term changes in youths' lives that can be expected to continue beyond the four-year observation period. We took a long-term, but cautious, approach to account

TABLE 3*

BENEFITS AND COSTS OF JOB CORPS, BY PERSPECTIVE
(1995 DOLLARS)

Benefits or Costs	Perspective: Society	Participants	Rest of Society
Benefits from Increased Output[a]	$27,531	$17,773	$9,758
Year 1	-1,933	-1,621	-313
Years 2 to 4	2,462	1,626	836
After the Observation Period	26,778	17,768	9,009
Output Produced During Vocational Training in Job Corps	225	0	225
Benefits from Reduced Use of Other Programs and Services	2,186	-780	2,966
Benefits from Reduced Crime	1,240	643	597
Program Costs	-14,128	2,361[b]	-16,489
Benefits Minus Costs	**$16,829**	**$19,997**	**-$3,168**
Net Benefits per Dollar of Program Expenditures[c]	**2.02**		

[a]The value of increased output includes additional earnings and fringe benefits net of increased child care costs. Taxes are also included for the participant and rest of society perspectives.

[b]This is student pay (allowances and bonuses), food, and clothing, a part of program costs that translates into a direct benefit to participants.

[c]The ratio of benefits to costs from each perspective depends partly on arbitrary decisions, such as whether year 1 output is subtracted from benefits or added to costs, and hence it is not easily interpretable. To provide a ratio with a useful interpretation, we present the amount society gains from each dollar spent on the program. The ratio's denominator is the amount spent operating the program ($16,489). The numerator is the benefit to society ($27,531 + $2,186 + $1,240) plus the cost of student pay, food, and clothing ($2,361). The cost of student pay, food, and clothing is included in the numerator to offset the fact that it is included in the denominator even though it is not a cost to society.

for future benefits. Only benefits that did not decline during the observation period were assumed to continue after it. Impacts on crime and use of other services and programs declined during the follow-up period; hence, we did not measure future benefits for these impacts. However, impacts on earnings persisted without decline, so we estimated the benefits from these impacts that will occur after the four-year observation period.

We tested the sensitivity of our estimates to alternative assumptions. The benchmark estimates presented in Table 3 are based on the best available data and, in our judgment, the most appropriate assumptions. However, recognizing the uncertainty inherent in these estimates and assumptions, we tested the sensitivity of our estimates to alternative estimates and assumptions. This sensitivity analysis plays a role analogous to the role of standard errors in the estimates of the Job Corps impacts.

Benefits and Costs

This section briefly describes the various benefits and costs included in our analysis and summarized in Table 3.

The largest benefit of Job Corps is the value of the additional output that participants produce. This additional output is measured by the increase in participants' total compensation — that is their earnings and fringe benefits — during the study follow-up period and beyond. Output initially decreased in the first year but then increased in the remaining three years of the follow-up period, as participants left the program. Because we assume the dollar value of the impact on compensation in the last follow-up year will persist for the rest of a participant's working life (see box), output after the follow-up period is the largest of all the components of benefits.

EARNINGS IMPACTS ARE LIKELY TO PERSIST

We assume that the return to Job Corps participation persists without decline for the rest of a youth's working lifetime. Four reasons lead us to believe this is the most appropriate assumption about future earnings.

1. ***The impacts of Job Corps did not decline during the follow-up period.*** We found that impacts increased during the third year in the follow-up period and persisted without a decline in the fourth year (approximately the second and third year, respectively, after program participation). Long-term studies of the returns to training find that, if returns decline, the decline occurs within two or three years after a trainee leaves a program.
2. ***Job Corps teaches youths multiple skills.*** Participants in Job Corps engage not just in vocational training but also academic education and training in social and workplace skills. By teaching youths multiple work-related skills, Job Corps is likely to have long-lasting effects on workers' productivity.
3. ***Job Corps improves literacy and numeracy skills.*** Our study found that Job Corps improved basic skills, which are less likely to become obsolete over time than more narrow job-specific training.
4. ***The earnings impacts from participation in Job Corps in the fourth year of the follow-up period were similar to the returns to a year of school.*** Studies have found that the returns to an additional year of school persist without decline as workers age.

The estimates of increased output include a small offset for increased child care costs. The additional time Job Corps participants spent in education, training, and employment means they spent less time caring for children in the home and have a greater need for child care outside the home. The cost of this additional child care to society is about $600 per participant.

As Job Corps participants earn more, they pay more in taxes. We estimated that Job Corps participants will pay about $9,700 more in federal, state, and local taxes throughout their working lives. The increased taxes are a cost to participants and a benefit to the rest of society. From society's perspective, these benefits and costs offset each other.

Job Corps students also produce goods and services during vocational training. The goods and services produced by participants for community organizations benefit society by about $200 per participant.

Reduced use of other programs and services is a benefit to society of about $2,200. More than half of this savings is due to participants' reduced high school attendance. Most of the rest is from their reduced use of other employment and training programs, although a small amount is due to reduced use of public assistance and substance abuse treatment programs. From the perspective of the rest of society, the savings from the reduced use of public assistance and substance abuse treatment programs is about $900, most of which is a transfer from participants to the rest of society.

The benefits to society of reduced crime are about $1,200 per participant. Reductions in murder and burglary committed by participants account for most of the savings. Participants also benefit from reduced crime committed against them. However, because criminals are likely to pick other targets, we assume that the total amount of crime in society is unaffected by this reduction.

Job Corps uses resources valued at just over $14,100 per participant. The majority of these costs are program operating costs reported on Job Corps financial reports.

Government expenditures on Job Corps are about $16,500, about $2,400 more than program costs to society. Some of the government expenditures for Job Corps are used to pay allowances and bonuses to participants and provide them with food and clothing. As pay, food, and clothing have intrinsic value to participants regardless of their value as an investment in the future, these expenditures are offset by equal immediate benefits to Job Corps participants. Hence these expenditures are not costs to society.

The Central Question: Do Benefits Exceed Costs?

By comparing benefits and costs we can address the central question of this study: Do the benefits from Job Corps exceed its costs?

Job Corps is a good investment of society's resources: benefits exceed costs. On average, society benefits from an increase in resources equivalent to about $17,000 for every youth it sends to Job Corps. Job Corps returns to society about $2 for every dollar spent on the program.

Job Corps participants gain about $20,000 from their participation. This is mostly comprised of increased earnings and fringe benefits after leaving Job Corps, net of increased taxes and child care costs. The earnings and fringe benefits participants forgo to attend Job Corps are generally offset by the value of pay (allowances and bonuses), food, and clothing they receive while enrolled.

The net cost of Job Corps to the rest of society is about $3,000 per participant. While the government spends about $16,500 on each participant, most of these costs are offset by the increased taxes paid by participants, their reduced use of education and training programs, reduced use of public assistance, and reduced costs of crime.

Benefits exceed costs under a wide range of plausible assumptions.

Benefits exceed costs under a wide range of plausible assumptions. The most critical assumptions are those that affect the estimate of the increased output after the follow-up period. If the earnings impact declines rapidly after the follow-up period, which in our judgment is unlikely, benefits from Job Corps would not exceed its costs. Our conclusion that benefits exceed costs requires that either the dollar value of the earnings impact in the last year of the follow-up period declines at less than eight percent each year until retirement, or the dollar value of the impact persists for at least nine years without any decline. In the coming years, it may be possible to replace these predictions about future benefits with empirical estimates of the long-term impacts of Job Corps, based on data from administrative records on sample members' earnings. The estimate of net benefits varied by less than $4,000 when we changed other assumptions in our analysis.

Placing the Findings in Context

The National Job Corps Study has found that Job Corps makes a meaningful difference for its participants and is a good investment. How do the findings from this study square with what is known about the effects of education and training programs for disadvantaged out-of-school youths? Compared to other programs serving disadvantaged youths, is Job Corps a good investment? And how do this study's findings compare with those from an earlier large-scale study of Job Corps?

To date, Job Corps is the only large-scale program that has produced sustained, significant earnings gains for disadvantaged youths. Furthermore, this same broad finding has emerged from two studies completed nearly 20 years apart.

Job Corps: The Only Large-Scale Program Shown to Work for Disadvantaged Youths

In the 1980s, DOL sponsored a national study of youth training programs funded under Title II-A of the Job Training Partnership Act (JTPA). Using random assignment in 15 volunteer sites, the study found no impacts over a 30-month period on the earnings of low-income out-of-school youths who participated (Orr et al. 1996). However, the JTPA programs provided less intensive services than Job Corps, and a smaller percentage of participants were high school dropouts.

Studies of demonstration initiatives targeted to disadvantaged youths are another source of comparative information. The JOBSTART demonstration, conducted in 13 local areas

during the late 1980s, provided education, training, and job placement services in a nonresidential setting to economically disadvantaged high school dropouts ages 17 to 21. The program was designed to incorporate two of the main programmatic elements of Job Corps — academic education and vocational training — but it was nonresidential. The profiles of earnings and earnings gains from JOBSTART were similar over a four-year follow-up period to the gains reported here for Job Corps. However, the gains were somewhat smaller and not statistically significant (Cave et al. 1993).

In the end, Job Corps remains the only large-scale program to have produced sustained and significant earnings gains for disadvantaged youths.

Job Corps Worked in the 1970s and Works Today

Job Corps is the only major federal training program to have been the subject of a careful large-scale evaluation twice in its 36-year history. A previous study (Mallar et al. 1982) produced estimates of the benefits and costs of Job Corps as it operated in the late 1970s. That study found impacts on educational attainment, earnings, and crime that were broadly similar to those discussed here. Comparisons with the current study are difficult to draw, however, because the program, the populations it served, and the context in which it operated have changed considerably in the nearly 20 years between the studies. Furthermore, the two studies used different methods to reach their conclusions. Despite these differences, both studies concluded that Job Corps produces meaningful impacts for participants and that it is cost-effective.

References

Cave G., H. Bos, F. Doolittle, and C. Toussaint. "JOBSTART: Final Report on a Program for School Dropouts." New York: Manpower Demonstration Research Corporation, October 1993.

Mallar, C., S. Kerachsky, C. Thornton, and D. Long. "Evaluation of the Economic Impact of the Job Corps Program: Third Followup Report." Princeton, NJ: Mathematica Policy Research, Inc., September 1982.

Orr, L., H. Bloom, S. Bell, F. Doolittle, W. Lin, and G. Cave. *Does Training for the Disadvantaged Work? Evidence from the National JTPA Study.* Washington, DC: Urban Institute Press, 1996.

Selected Publications from the Job Corps Study

"National Job Corps Study: The Impacts of Job Corps on Participants' Employment and Related Outcomes." P. Schochet, J. Burghardt, and S. Glazerman, forthcoming. Presents estimates of the impacts of Job Corps on participants' employment and related outcomes during the 48 months after random assignment.

"National Job Corps Study: The Benefits and Costs of Job Corps." S. McConnell and S. Glazerman, forthcoming. Presents estimates of the major benefits and costs of Job Corps within a unified framework.

"National Job Corps Study: Impacts by Center Characteristics." J. Burghardt and P. Schochet, forthcoming. Presents estimates of key impacts for participants assigned to groups of centers defined by type of contractor, size, region, and center performance rating.

"National Job Corps Study: Assessing Program Effects on Earnings for Students Achieving Key Program Milestones." M. Gritz and T. Johnson, forthcoming. Using nonexperimental methods, presents estimates of the effects of Job Corps for participants who complete vocational training and those who do not, as well as for participants who obtain a GED and those who do not.

"National Job Corps Study: The Impacts of Job Corps on Participants' Literacy Skills." S. Glazerman, P. Schochet, and J. Burghardt, July 2000. Estimates the impacts of Job Corps on participants' prose, document, and quantitative literacy, which are typically weak for youths entering the program. Finds positive impacts in all three domains and across most key groups. http://wdr.doleta.gov/opr/fulltext/document.asp?docn=6076

"National Job Corps Study: Job Corps Applicants' Programmatic Experiences." T. Johnson, M. Gritz, and M. Dugan, September 2000. Examines outreach, admissions, and center characteristics and practices that appear to promote positive experiences for Job Corps students. Finds that outreach and admissions counselors play a key role in these experiences, as do center characteristics and strength of the academic and vocational programs. http://wdr.doleta.gov/opr/fulltext/document.asp?docn=6125

"National Job Corps Study: Report on Study Implementation." J. Burghardt, S. McConnell, A. Meckstroth, P. Schochet, T. Johnson, and J. Homrighausen, April 1999. Describes implementation of random assignment and sample intake, presents evidence that the process was implemented in a way that will enable the study to realize its goals, and draws lessons that may be applicable to other program evaluations.
http://wdr.doleta.gov/opr/fulltext/document.asp?docn=6068

"National Job Corps Study: Report on the Process Analysis." T. Johnson, M. Gritz, R. Jackson, J. Burghardt, C. Boussy, J. Leonard, and C. Orians, February 1999. Describes and documents program services, concluding that the program model is well-developed and the program well-implemented.
http://wdr.doleta.gov/opr/fulltext/document.asp?docn=6065

"The Value of Output and Services Produced by Students While Enrolled in Job Corps." S. McConnell, February 1999. Estimates the value of products and services students produce during their vocational training in Job Corps, for the benefit-cost analysis to assess whether the substantial investment of public resources is justified by program benefits. http://wdr.doleta.gov/opr/fulltext/document.asp?docn=6071

"National Job Corps Study: Characteristics of Youths Served by Job Corps." P. Schochet, January 1998. Describes the characteristics of eligible applicants and compares them with the broader national population of disadvantaged youths. http://wdr.doleta.gov/opr/fulltext/document.asp?docn=6067

How to Get Publications

National Job Corps Study reports are available by calling (202) 693-3666 or writing to the Employment and Training Administration, Office of Policy and Research, Dissemination Unit, 200 Constitution Ave., N.W., Room N-5637, Washington, DC 20210. Publications can also be ordered over the internet at http://wdr.doleta.gov/opr/Pub818.htm.

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